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Infrastructure Investment is the Key

**How Congress Should Help Meet
the Nation's Natural Gas Supply Needs**

- U.S. industry overall depends on natural gas for 27 percent of its primary energy consumption. Because of such a strong reliance on natural gas, U.S. consumption continues to rise despite escalating prices.
- The United States is expected to consume nearly 30 trillion cubic feet (Tcf) of natural gas per year by 2020 – a 38-percent increase over current consumption levels.
- To meet this strong demand, the industry estimates that \$61 billion in natural gas infrastructure investment will be needed over the next 15 years. This includes investment in pipelines, storage facilities, and liquefied natural gas terminals.
- Time is money, and so delaying investment for just two years could cost consumers in excess of \$200 billion by 2020, according to an industry study.
- Current government policies discourage the market from finding a solution – that is, investing in infrastructure. Regulatory impediments to investment include: jurisdictional confusion, which delays infrastructure construction; and “open access” and rate regulations, which distort rates of return on investment. Additionally, there are tax impediments, including too-lengthy depreciation periods.
- Congress should allow the market to work. It should clarify administrative jurisdiction; it should terminate open access requirements and introduce market pricing of natural gas infrastructure services; and it should reduce depreciation periods or permit immediate expensing for tax purposes on capital investment.

Introduction

Forecasters predict energy prices across the board will continue to rise,¹ and so energy policy is likely to figure as a major issue in the 109th Congress. Fundamental to that policy must be the recognition that U.S. energy consumers will benefit from policy changes only to the extent that such changes result in less federal interference in energy markets. In contrast, more federal interference – whether through taxes, subsidies, or regulation – will reduce the ability of energy markets to meet consumer needs in a cost-effective manner.

Particularly deserving of Congress's attention is the need for policy changes that will result in infrastructure expansion for the natural gas industry. The high price of natural gas affects many consumers in the residential, commercial, and industrial sectors – even if they do not directly purchase natural gas. For example, U.S. industry overall depends on natural gas for 27 percent of its primary energy consumption. Because of such a strong reliance on natural gas, U.S. consumption continues to rise despite escalating prices. One way to meet growing consumption needs is a policy that encourages additional investment in distribution and storage infrastructure. Yet current government policies discourage needed investment. To encourage investment, Congress should remove regulatory and tax barriers that delay (and therefore raise the cost of) natural gas infrastructure construction.

Throughout the 108th Congress, the Republican Policy Committee produced several papers that identified regulatory and tax barriers to achieving reliable and affordable energy supplies.² This paper will continue in that vein, focusing on impediments to natural gas infrastructure investment.

U.S. Natural Gas Infrastructure Needs

According to a study commissioned by the Interstate Natural Gas Association of America Foundation (INGAA Foundation), the United States is expected to consume nearly 30 trillion cubic feet (Tcf) of natural gas per year by 2020, or a 38-percent increase over current consumption levels.³ As a result, over the next 15 to 20 years, significant investment in pipeline and storage capacity, as well as in terminal capacity to receive liquefied natural gas (LNG) shipments, will be needed to keep pace with U.S. demand for natural gas and to keep prices from rising even higher than they might otherwise. Although all sectors of the economy will

¹Energy Information Administration, *Short Term Energy Outlook – November 2004*, November 9, 2004.

²See: *Increasing the Supply of Natural Gas*, July 29, 2003; *Fixing the Power Grid*, September 30, 2003; *Identifying the Causes of Rising Gasoline Prices*, June 1, 2004; *Securing the Nation's Energy Future*, July 20, 2004, <http://rpc.senate.gov>.

³Energy and Environmental Analysis, Inc., *An Updated Assessment of the Pipeline and Storage Infrastructure for the North American Gas Market and Adverse Consequences of Delays in the Construction of Natural Gas Infrastructure*, a study commissioned by INGAA, July 2004.

contribute to the increase in consumption, the power-generation sector will contribute more than half of the total estimated increase.

It is critical, therefore, that pipeline and storage capacity keep pace with demand for natural gas. The INGAA Foundation study estimates that, to meet this demand, investment in pipeline and storage infrastructure amounting to some \$61 billion will be needed over the next 15 years. It also estimates that delaying investment for just two years could cost consumers in excess of \$200 billion by 2020 due to increasing capacity bottlenecks and the inability to get gas to market.

A Short History of Natural Gas Regulation

While the natural gas industry has evolved to a significant degree over the last 75 years, pipeline rate regulation remains as a relic of the past. When Congress enacted the Natural Gas Act in 1938, natural gas service was limited and pipelines were few. As such, pipelines were treated as natural monopolies that required comprehensive regulation. Pipelines purchased gas at one end of their systems, transported the gas, and sold it at the other end. The Federal Energy Regulatory Commission (FERC) regulated both the price of the commodity at the wellhead, as well as the rates in interstate pipelines charged for both the gas commodity and the transportation in interstate commerce.

By the late 1970s, this regulatory model began to show its age. Heavy-handed price regulation resulted in decreased domestic exploration and production of natural gas, which resulted in market shortages and even mandated factory and school closures during peak winter demand periods. Congress began the process of deregulating natural gas wellhead prices during that next decade, completing the deregulation of the commodity with passage of the Wellhead Decontrol Act of 1989.

The FERC also acted to update the efficiency of the interstate pipeline sector – which resulted in increased competition but also in increased financial risk to potential investors. In several actions undertaken in the 1980s and early 1990s, the FERC “unbundled” gas transmission from commodity sales, in essence taking pipelines out of the merchant gas sales business and turning the pipelines into a transportation-only business. Interstate pipelines were also required to make capacity available on an open access basis to anyone willing to contract for capacity at regulated rates. This restructuring increased financial risk to the pipeline industry, a risk which is compounded by the fact that the pipeline industry still faces the same rate regulation as existed in 1955.⁴

⁴Merrill Lynch, *Natural Gas*, March 25, 2004; See also: *History of Natural Gas Regulation*, <http://www.naturalgas.org/regulation/history.asp>.

The Primary Federal Impediments to Infrastructure Investment

Regulatory impediments that hinder investment include: jurisdictional confusion, which delays construction of infrastructure investment and increases costs; and open access and cost-of-service regulations, which distort rates of return to investment. Tax impediments include depreciation periods that are too long.

Jurisdictional Confusion

One problem that impedes infrastructure investment is the emerging conflicts between the FERC and other federal and state agencies regarding the approval of permitting and siting of new pipeline and liquefied natural gas import facilities. Although the FERC has been granted broad powers under the Natural Gas Act to approve and site such facilities that engage in interstate and foreign commerce, states are using federally delegated powers, such as those found in the Coastal Zone Management Act and Clean Water Act, to oppose FERC's decisions. Indeed, recent actions in several states have delayed pipeline projects even after the FERC has granted a Certificate of Public Convenience and Necessity, which authorizes construction and operation of a project. The delays, as mentioned previously, chase away capital and increase the cost of natural gas for a wide group of consumers.

Pipeline Regulation

Major regulatory impediments to natural gas infrastructure investment are open access requirements and cost-of-service regulation. The FERC, which has exclusive authority to regulate the pipeline industry, can do little more to reduce the regulatory burden on the natural gas industry, given that Congress has not changed the statutory mandate in decades. At the very least, pipeline rates of return should more accurately reflect today's financial risks, not anachronistic realities of 50 years ago. But continued rate regulation, even if updated, is not likely to solve the problem. Bureaucratic rate-setting distorts markets, leading to shortages and other inefficiencies. Pipeline owners should be able to charge market rates for their services, instead of a fixed FERC-approved tariff.

Disincentives in the Tax Code

Finally, the tax code is not as friendly to investment in energy infrastructure as it could be. Tax reform to reduce capital cost recovery terms for investors would provide additional incentives to invest in natural gas infrastructure.

How Congress Can Encourage Investment in Natural Gas Infrastructure

Congress can reduce government interference by streamlining the administrative process and improving jurisdictional clarity; by introducing market pricing; and by improving the ability of investors to recover the cost of capital investment.

Improving Jurisdictional Clarity and Administrative Efficiency

By streamlining the regulatory process and clearing up the jurisdictional issues regarding natural gas infrastructure siting and operation, Congress can eliminate delays and reduce the impediments to investment.

Under current law (the Natural Gas Act), the FERC has exclusive authority for new construction of pipelines and onshore liquefied natural gas (LNG) terminals, and the U.S. Coast Guard has jurisdiction over the siting of offshore LNG terminals. Both agencies have succeeded in significantly streamlining the approval process for these facilities. However, other federal, state, and local agencies (e.g., state utility commissions and environmental agencies) also play a major role in the approval process, and project sponsors must acquire myriad other state and federal permits before infrastructure projects can begin. In its review, the FERC makes all relevant federal, state, and local permitting agencies as “participating agencies” in its comprehensive National Environmental Policy Act (NEPA) process. Unfortunately, some federal and state agencies choose to sit out the federal NEPA process and attempt to develop their own record – despite the fact that this role is, by statute, exclusively reserved for FERC..⁵

As noted by Don Santa, president of the INGAA Foundation, “FERC devotes significant resources to working cooperatively with these other agencies.” But these other agencies “increasingly are using the jurisdictional hook provided by other laws (i.e., the Coastal Zone Management Act and the Clean Water Act) to second guess aspects of the decisions that FERC has made following the thorough review conducted under NGA.”⁶

To improve administrative efficiency and avoid jurisdictional confusion, Congress should encourage all interested federal, state, and local agencies to coordinate the timing of their reviews to coincide with, and be part of, the FERC’s comprehensive review that is required under NEPA. In that way, all interested parties could work out the relevant issues in one concurrent and comprehensive review to streamline the process, as well as avoid wasteful duplication of effort.

One way to encourage the relevant government agencies to be involved in the NEPA process would be to make FERC’s record of that process the exclusive record for any administrative appeals, such as appeals under the Coastal Zone Management Act or Clean Air Act. By making FERC’s record the backstop for administrative appeals, agencies would be encouraged to get involved with the review process that produces that record. Moreover, if all interested parties are involved in the NEPA process it may be possible to address their concerns up-front and avoid subsequent administrative and judicial appeals.

⁵See, for example, testimony by Paul D. Koonce before the Senate Energy and Natural Resources Committee, March 4, 2004, regarding actions by the National Oceanic and Atmospheric Administration (NOAA) to compile its own record as part of a review of a state’s appeal under the Coastal Zone Management Act. These actions led to significant delays, but were redundant and unnecessary, as the exact same ground had already been thoroughly covered in the FERC review.

⁶Donald F. Santa, Jr., testimony before the House Subcommittee on Energy Policy, Natural Resources and Regulatory Affairs, Committee on Government Reform, June 22, 2004.

Although one concern might be that the FERC could become obstructive in the process, to date it has been reasonably expeditious in approving infrastructure projects. The real problem currently is that federal law is at cross-purposes. On the one hand, the FERC has authority to approve projects, while on the other, states can use federally delegated powers to delay or obstruct them. However, in the event the agency in the future were to become obstructive, Congress could address the problem.

Additionally, the administrative process can be streamlined by giving the U.S. Court of Appeals for the D.C. Circuit original and exclusive jurisdiction to review actions by federal or state agencies that unreasonably delay or condition the construction of a pipeline project authorized by FERC.⁷

Introducing Market Pricing

Government regulation of natural gas infrastructure is also responsible for suppressing investment in additional capacity. Open access and cost-of-service regulations allow any shipper of natural gas to use interstate pipelines on a first-come-first-served basis at regulated prices. This has significantly increased pipeline traffic while suppressing investment in additional infrastructure. This is of particular concern because cost-of-service regulation distorts the price signals that investors need to determine where their investment dollars will do the most good. The result will be too much investment in some areas and not enough in others.

The FERC has opened a window to change in this area: in December 2002, the agency terminated open access and cost-of-service requirements for a new onshore LNG terminal in Hackberry, Louisiana. This decision, known as the “Hackberry decision,” authorized the Hackberry facility to provide services at market-based rates.⁸ This was an important first step, in that it sent a critical message to investors about the desire to encourage new infrastructure investment – but the decision applies to only this one new LNG terminal.

Congress needs to take the next step by codifying the Hackberry decision for all new LNG terminal construction and expansion. It should also direct the FERC to terminate open access requirements for natural gas pipelines and gas storage facilities and to authorize operators of these facilities to negotiate mutually agreed upon terms and rates with users of facilities and

⁷The Natural Gas Act requires court review of FERC decisions to be by a circuit court of appeals of the United States, either the one in the area where the aggrieved party has its principal place of business or, as a fallback, the D.C. Circuit. The D.C. Circuit has developed an extensive amount of experience on administrative law cases involving the Natural Gas Act, and is therefore far more likely to act in an expeditious manner. Moreover, the circuit courts of appeals are “courts of law” rather than “courts of fact,” which is the role filled by local district courts. The goal here is to have the court examine the law based on the existing set of facts (i.e., the existing FERC record) rather than engaging in a *de novo* review of the facts.

⁸Energy Information Administration, *Annual Energy Outlook, 2004: With Projections to 2025*, January 2004.

services. This would increase appropriate investment by allowing market participants to enter into a wide range of contracts that more accurately reflect market conditions.⁹

Increasing Capital Cost Recovery

Another way to reduce investment costs in natural gas infrastructure is through accelerated depreciation of capital costs or through immediate expensing. Currently, new natural gas transmission infrastructure is depreciated over 15 years and, as noted by the American Council for Capital Formation, the United States ranks in the bottom third or below, compared to other countries, in terms of capital cost recovery allowances for investments in energy assets.¹⁰ Some countries allow energy investors to fully recover their capital costs, while the U.S. energy investors recover well below 50 percent of their capital costs. This adversely affects the international competitiveness of U.S. companies.

The industry has advocated a seven-year accelerated depreciation. Charles Fritts, vice president for the American Gas Association (AGA) argues that faster tax depreciation will provide the necessary incentives to spur investment in natural gas infrastructure.¹¹

Congress could provide an even stronger incentive by allowing companies to immediately write off the expense of investing in natural gas infrastructure, rather than depreciating it over a number of years. Such a tax policy change is worth considering because of the incentive to invest, as well as the improvement in international competitiveness it would provide.

Conclusion

Over the next 15 years, the U.S. natural gas industry will need to invest as much as \$61 billion in natural gas infrastructure to maintain the integrity of the system and keep up with rising consumption. Even a minor delay in investment could lead to billions of dollars of consumer costs. Such costs are avoidable: Congress in the upcoming session should reduce regulatory and tax impediments that discourage greater investment. This would include streamlining the administrative process (and eliminating jurisdictional confusion); increasing the role of market forces by terminating open access and cost-of-service regulations; and speeding up capital cost recovery through tax reform. These actions would induce investment, helping consumers and the economy as a whole.

⁹Although the open access requirement had the positive affect of increasing competition in the rest of the natural gas industry, thereby lowering consumer costs, it increased the risk to pipeline investment. Infrastructure regulation is the last vestige of regulation in the natural gas industry that should be swept away.

¹⁰Margo Thorning, in testimony before the Joint Economic Committee of the U.S. Congress, November 28, 2001.

¹¹Charles Fritts, Testimony before the House Ways and Means Committee, May 3, 2001.